

DEPARTMENT OF THE NAVY
Michael E, McClelland, P.E., BRAC Environmental Coordinator
Southwest Division
Naval Facilities Engineering Command
San Diego, California

**ACTION MEMORANDUM FOR TIME-CRITICAL
REMOVAL OF PAH-CONTAMINATED SOIL
AT THE CLOWN PARK PLAY AREA**

ALAMEDA POINT
ALAMEDA, CALIFORNIA

October 20, 2000



DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132-5190

5090
Ser 06CA.RW/870
23 Oct 2000

Mr. Phillip Ramsey
USEPA, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

Subj: CLOWN PARK SOIL REMOVAL, ACTION MEMORANDUM

Dear Mr. Ramsey:

This letter transmits the Action Memorandum for the Time Critical Removal Action performed by the Navy at Clown Park. The removal action was performed to remove PAH containing soils from beneath a play area located within the Coast Guard Housing Area at Alameda Point, Alameda, California. Following completion of the removal action, the Coast Guard will install a new play structure at the site.

Please provide comments on the document within 30 days (November 24, 2000). The Navy responses to regulatory agency comments will be provided within 30 days of receipt. The Action Memorandum, regulatory agency comments, and Navy responses will be incorporated into the Administrative Record. Public comments received in response to the public notice, and response(s), will also be added to the Administrative Record.

Please feel free to contact me at (619) 532-0952 if you have any questions.

Sincerely,

RICHARD C. WEISSENBOERN, P.E.
Base Realignment and Closure
Remedial Project Manager

Enclosure: 1. Action Memorandum for Time-Critical Removal of PAH-Contaminated
Soil at the Clown Park Play Area, Alameda Point, Alameda, California

Copy to:
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Berkeley, California 94710-2721

5090
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23 Oct 2000

Ms. Anna Marie Cook
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
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Ms. Elizabeth Johnson
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950 West Mall Drive, Building 1
Alameda Point
Alameda, California 94501

Mr. Ted Splitter
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950 Northgate Drive, Suite 313
San Rafael, California 94903

REMOVAL ACTION APPROVAL

As detailed in Section 3.0 of this document, PAH-contaminated soil at the Clown Park Children's Play Area in the Coast Guard Housing Area at Alameda Point, Alameda, California, posed a threat that met the National Oil and Hazardous Substances Pollution Contingency Plan criteria for a time-critical removal action. Because of the need for immediate action at the site, the Navy intends to conduct excavation and off-site disposal of contaminated soil. Excavation and off-site disposal of the contaminated soil most efficiently met all removal objectives and resulted in the most rapid reduction in risk. As documented by the signature below, the Navy approved of the proposed excavation and off-site disposal of the contaminated soil.

Base Realignment and
Closure Environmental
Coordinator:



Michael E. McClelland, P.E.
Southwest Division
Naval Facilities Engineering Command

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ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or relevant and appropriate requirements
BCT	BRAC Cleanup Team
bgs	Below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DTSC	California Department of Toxics Substances Control
EE/CA	Engineering evaluation/cost analysis
EPA	U.S. Environmental Protection Agency
mg/kg	Milligrams per kilogram
Navy	U.S. Department of the Navy
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
PAH	Polycyclic Aromatic Hydrocarbons
RI	Remedial investigation
RWQCB	Regional Water Quality Control Board
TPH	Total petroleum hydrocarbons

1.0 INTRODUCTION AND PURPOSE

The Clown Park children's play area is located in former naval housing that is being used for residential occupancy by the U.S. Coast Guard. Polycyclic aromatic hydrocarbons (PAHs) have been detected in soil samples from the housing area at concentrations exceeding a Screening Level established with CAL EPA DTSC of 0.620 milligrams per kilogram BAP equivalent for PAHs. The Navy decided to perform a removal action to eliminate the potential for exposure of children using the play area. Verbal approval for the removal action was given by EPA and DTSC at an October 18, 2000, BCT meeting.

The remaining portions of the full CERCLA process, including preparation of the RI Report, FS Report, Record of Decision, Proposed Plan, Remedial Design and Remedial Action implementation will be conducted for the entire Coast Guard Housing Area and adjacent Estuary Park (referred to as IR-Site 25) following completion of the removal action. The presence of elevated PAH concentrations at the site posed a potential threat to human health and the environment as defined in Section 300.415(b)(2)i, of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Navy determined that immediate removal of PAH-contaminated soil at the play area could prevent the potential exposure of children to the compounds.

This document provides notification of and documents approval of the removal action for PAH-contaminated soil at Clown Park. Specifically, this document discusses the site conditions and background, threats to public health and welfare or the environment, endangerment determination, proposed action and estimated cost, outstanding policy issues, enforcement, and recommendations.

2.0 SITE CONDITIONS AND BACKGROUND

This section presents the site location and description, site geology and hydrogeology, releases or threatened releases into the environment of a hazardous substance or contaminant, the site's National Priorities List (NPL) status, other actions taken at the site to date, and the role of state and local authorities at the site.

2.1 SITE LOCATION AND DESCRIPTION

Clown Park is located in the northeastern portion of Alameda Point. Alameda Point, the former Naval Air Station, Alameda, is located at the western end of Alameda Island. Alameda Island is on the eastern

shore of San Francisco Bay, adjacent to the City of Oakland. Alameda Point occupies approximately 2,634 acres (both onshore and offshore), and is approximately two miles long by one mile wide.

The Coast Guard Housing Area is located in the northeastern corner of Alameda Point, and occupies 33 acres. Clown Park is located near the geographical center of the Coast Guard Housing Area. (see Figure 1). The play area is a 45 feet by 45 feet square, with 25-foot radius semicircles on each side (see Figure 2). The play area is edged by a concrete berm and filled with imported sand.

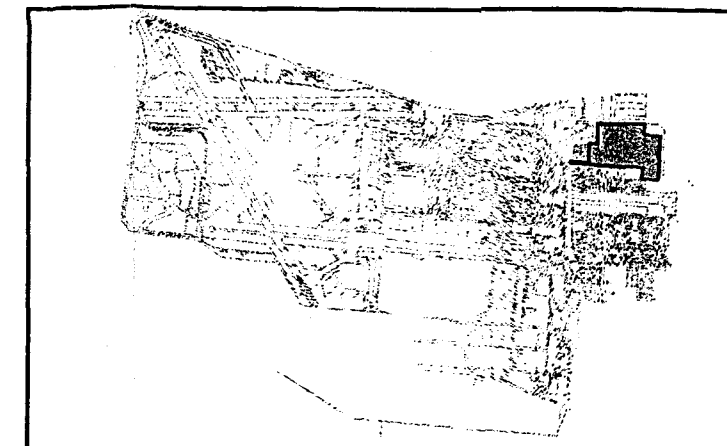
2.2 SITE CHARACTERISTICS

Soil samples collected from the turf-covered area near Clown Park contained PAHs at concentrations greater than the 0.062 PRG. PAH concentrations in the area surrounding Clown Park were generally in the range of 1.7 to 5.6 mg/kg. PAHs have been detected in discrete samples collected from 0 to 0.5 feet below ground surface (with the turf or paving material and subgrade removed to establish "ground surface"), 1.5 to 2 feet below land surface, 3.5 to 4 , and 7.5 to 8 feet bgs. Concentrations of PAHs varied across Site 25, with the highest concentrations reported for samples from Estuary Park and a general decrease in reported concentrations at sample locations away from Estuary Park.

2.3 RELEASE OR THREATENED RELEASE OF A HAZARDOUS SUBSTANCE OR CONTAMINANT

The northeastern portion of Alameda Point was built up using dredged material from tidal wetlands and the Oakland Inner Harbor. Some of the dredged material may have contained waste materials from manufactured gas plants formerly located on the north side of the Inner Harbor. PAHs would have been included in the waste materials from the manufactured gas plants. It is believed that the PAH contamination present at Clown Park is the result of placing the contaminated fill material. PAHs have not been regularly used during the Navy site occupancy.

Potential exposure pathways to the PAHs include dermal contact leading to accidental ingestion, direct ingestion, and inhalation. Because Clown Park is a children's play area, the most likely exposure pathways are believed to be accidental and direct ingestion.



LOCATOR BOX

LEGEND

- PAVED ROAD OR PARKING LOT
- BUILDING, CONCRETE, PAVED, OR COVERED AREA
- INSTALLATION RESTORATION SITE

CLOWN PARK

25



100 0 100 200
SCALE: 1" = 200'

FIGURE 1
CLOWN PARK
LOCATION MAP
ALAMEDA POINT
ALAMEDA, CALIFORNIA

SEP. 28. 2000 9:54AM

EFA WEST

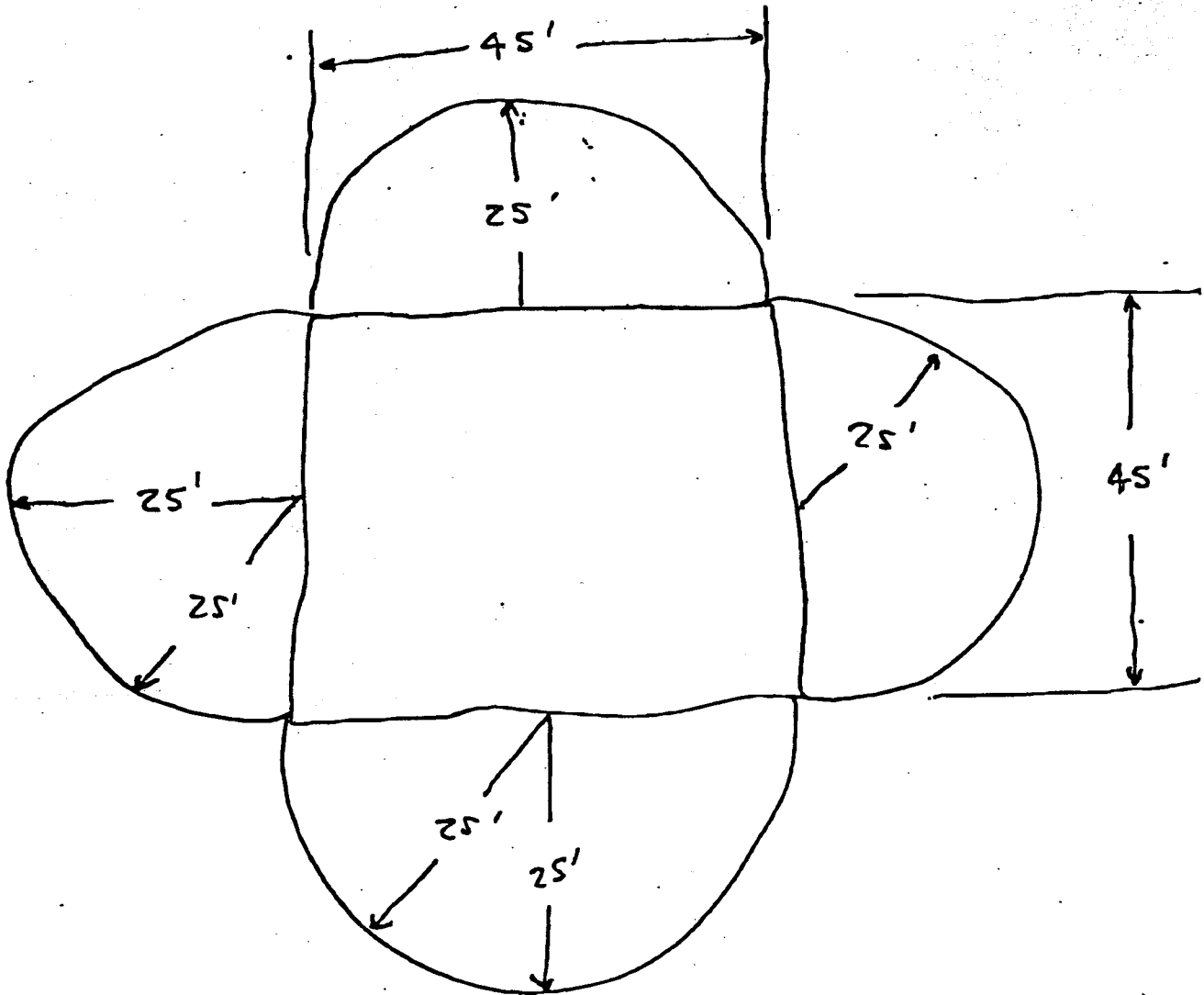
NO. 1636 9/P. 100

TO: MARY ROSE CASSA

(510) 849. 5285

FROM: STEVE EDDE

CLOWN PARK SKETCH (PLAN VIEW)
FOOTPRINT



EXCAVATION IS 4' DEEP.

2.25ft circles x 4/dies

185 cu yd.

45' x 45' x 4' = 300 cu yd.

485 yd³ = 50 trucks

FIGURE 2
CLOWN PARK PLAY AREA
EXCAVATION AREA

2.4 NATIONAL PRIORITIES LIST STATUS

Alameda Point was added to the NPL in July 2000. The listing was the result of a hazard ranking system evaluation performed by the US EPA.

2.5 OTHER ACTIONS TO DATE

Previous actions at Clown Park include site characterization sampling activities. Current actions include time-critical removal activities at the site. This section summarizes previous and current actions.

2.5.1 Previous Actions

Soil sampling at Site 25 began with the Phase 2A EBS in 1994 and 1995. Surface soil samples were analyzed for PAHs, which were reportedly present at elevated levels. Also detected in the surface soil samples were motor oil -range petroleum hydrocarbons and low concentrations of methoxychlor, endosulfan sulfate and DDT.

Phase 2B EBS sampling was performed in 1995. Analytical results indicated that PAHs were present in soil samples collected from ground surface to a depth of eight feet below ground surface.

Between October 1998 and April 1999, the Navy collected soil samples at Site 25. Concentrations of PAHs reported for the soil samples ranged from 0.11 to 560 mg/kg. Oil-range petroleum hydrocarbons and BTEX were detected at low frequency at relatively low concentrations.

2.5.2 Current Actions

Current actions at Clown Park include time-critical removal activities associated with PAH-contaminated soil. This report discusses the PAH soil removal action completed at the Clown Park children's play area.

2.6 STATE AND LOCAL AUTHORITIES' ROLES

The Clown Park play area is part of a federal facility. Section 120(f) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires the Navy to give appropriate state and local officials the opportunity to participate in planning and selection of remedial actions at Navy facilities. The Navy initially discussed this removal action with US EPA and DTSC

during a December 19, 1999, meeting. Subsequent discussions have also been held. US EPA, DTSC, and the Regional Water Quality Control Board (RWQCB) are currently the regulatory agencies during CERCLA activities at Alameda Point, and are reviewing and commenting on the Navy's CERCLA response activities at Alameda Point.

3.0 THREATS TO PUBLIC HEALTH AND WELFARE AND THE ENVIRONMENT

Based upon the presence of elevated PAH concentrations in soils, the Navy determined that Clown Park posed a potential threat to public health and welfare and the environment and that a removal action pursuant to CERCLA Section 104(a) was appropriate in order to mitigate these threats. The potential threats are discussed below.

3.1 THREATS TO PUBLIC HEALTH AND WELFARE

A PAH concentration of 6.43 mg/kg was detected in a soil sample adjacent to Clown Park. The removal action was intended to reduce the threat to public health and welfare that could result when PAHs are present at a concentration which could result in greater than 10^{-4} increased lifetime cancer risk. The following threat to public health and welfare is defined in NCP Sections 300.415(b)(2)i, is present at Clown Park:

- **Actual or potential exposure of nearby human populations to hazardous substances, pollutants, or contaminants.** People residing, working, or playing at the site may be exposed to soil contaminated with PAHs through direct contact or incidental ingestion. PAHs are hazardous substances known to pose a threat to human health.

3.2 THREATS TO THE ENVIRONMENT

The quality of wildlife habitat at Clown Park Area makes it unlikely that any terrestrial receptors were threatened by the contamination. Constant human use of the play area has reduced the use of the area as habitat for most wildlife. PAHs are not considered a contaminant of ecological concern at the site. Although PAHs did not pose an immediate environmental risk, the removal action reduced the potential for environmental damage.

4.0 ENDANGERMENT DETERMINATION

Human exposure to PAHs through direct contact with or incidental ingestion of contaminated soil posed a potential threat to public health and welfare if the removal action described in this document had not been implemented.

5.0 REMOVAL ACTION AND ESTIMATED COST

This section describes the removal action for PAH-contaminated soil at Clown Park. It also provides an explanation of why an engineering evaluation/cost analysis (EE/CA) was not performed, discusses applicable or relevant and appropriate requirements (ARAR), and discusses the estimated cost of the removal action.

5.1 DESCRIPTION OF REMOVAL ACTION

The area to be excavated was illustrated in Figure 2. Soil within the play area will be excavated to a depth of four feet. Soil will be excavated with a track hoe, and placed directly into trucks, covered, and transported off site to an approved landfill. An estimated 900 cubic yards of soil will be removed.

A high density polyethylene liner will be placed in the bottom of the excavation. Clean imported fill will be placed from 4 feet bgs to 1.25 feet bgs, compacted to 90% relative compaction. Pea gravel will be placed from 1.25 to 1 foot bgs. Fall zone material will be placed from 1 foot bgs to final grade, by the Coast Guard, following installation of the new play structure. A temporary six-foot chain link fence will be provided to prevent access by local residents before improvements are complete.

Removal action activities are not expected to intercept groundwater.

All fieldwork is expected to be completed by October 31, 2000.

5.2 ENGINEERING EVALUATION/COST ANALYSIS

An EE/CA was not conducted for the removal action because it was time-critical (see Title 40 of the *Code of Federal Regulations*, 300.415[b][4]). The estimated cost of the removal action is discussed in Section 5.6.

5.3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The purpose of conducting the removal action was to reduce risks to human health by removing PAH-contaminated soil from the vicinity of the Clown Park play area. Installation of the HDPE liner at four feet bgs and removal of the existing soil to four feet bgs eliminates the potential exposure pathway at the Clown Park play area.

The Federal Superfund Amendments and Reauthorization Act of 1986 (SARA) requires consideration of applicable or relevant and appropriate requirements (ARARs) for removal actions at a site. Applicable requirements are promulgated federal or state standards that specifically address a hazardous constituent, removal action, location, or other conditions at a site. Relevant and appropriate requirements are promulgated federal or state requirements that address problems or situations sufficiently similar to those encountered at a hazardous waste site, while not directly related to the circumstances at a CERCLA site. ARARs considered for the Clown Park soil removal action are summarized in Table 1.

**Table 1 Clown Park Soil Removal
Applicable or Relevant and Appropriate Requirements**

Citation	ARAR Classification	Description	Comments
Coastal Management Zone Act; 16USC 1456(c)(1)(A); 15CFR 930	Relevant and appropriate	Requires federal agencies to conduct activities affecting the coastal zone consistent to the maximum extent practicable with approved state management programs.	Clown Park is not located within the coastal zone, but active removal activities at the facility may affect land or water use, or natural resources of the coastal zone at adjacent facilities.
McAteer-Petris Act (California Government Code Section 66600 and following sections)	Relevant and appropriate	The state management program for San Francisco Bay is contained in the Bay Conservation and Development Plan, enacted pursuant to the McAteer-Petris Act of 1965. It establishes requirements for prescribed activities affecting San Francisco Bay.	Clown Park is not located within the coastal zone, but active removal activities at the facility may affect land or water use, or natural resources of the coastal zone at adjacent facilities.
California Water Pollution Prohibition Act (California Fish and Game Code Section 5650)	Relevant and appropriate	Prohibits the deposition, directly or indirectly, into waters of the state any substance or material that is deleterious to fish, plant, or bird life.	Relevant to protect fish, plants or birds that may use the Oakland Inner Harbor from contamination resulting from excavation and treatment activities.
22 CCR Sections 66261.10 and 66261.24(a)(1)	Applicable	Establishes criteria for identifying hazardous waste.	The requirements will apply to characterize the excavated

Citation	ARAR Classification	Description	Comments
			soil to determine whether it must be managed as hazardous waste.
22 CCR Sections 66262.1, 66262.11, 66262.20, 66262.30, 66262.31, 66262.32, 66262.33, and 66262.34	Applicable	Establishes standards for generators of hazardous waste.	If excavated soil is hazardous waste, these requirements will apply to managing excavated soil prior to shipment off site.
22 CCR Section 66268.7(a)	Applicable	Sets requirements for testing excavated soil to see if it is restricted for land disposal.	This regulation requires generators to determine if treatment is required prior to land disposal.
22 CCR Section 66261.24(a)(2)	Applicable	Establishes criteria for identifying California hazardous waste.	This requirement applies to characterize excavated soil to determine if it is a California hazardous waste.
BAAQMD Regulation 6-301, 302, and 305	Applicable	Sets requirements for controlling particulate and visible emissions during excavation and transport.	These requirements may be applicable to excavation and handling of soils.
BAAQMD Regulation 8-40-301 and 8-40-303	Relevant and appropriate	Limits uncontrolled aeration of stockpiled soil.	These requirements are applicable to contaminated soils which are excavated and stockpiled.
23 CCR 2546	Relevant and appropriate	Requires precipitation and drainage controls to limit to the greatest extent possible, inundation, erosion, or other conditions affecting stockpiled soils.	These requirements are relevant and appropriate to stockpiles generated from excavation of soil if the soil must be managed as a hazardous waste.

5.4 PROJECT SCHEDULE

The removal action will begin October 23, 2000, and will be completed by November 10, 2000.

5.5 ESTIMATED COST

The cost of the removal action is approximately \$140,000, including physical restoration of the site.

6.0 EXPECTED CHANGES IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If the removal action is not implemented, the PAHs in the soil would continue to pose a risk to children using the Clown Park play area. Delaying the removal action would also result in disturbance of the new play structure, to be installed by the Coast Guard, during subsequent remedial action(s).

7.0 OUTSTANDING POLICY ISSUES

No outstanding policy issues are associated with Clown Park.

8.0 ENFORCEMENT

US EPA is the enforcement agency for the site.

9.0 CONCLUSION

The Navy will conduct the time-critical removal action of PAH-contaminated soil at the Clown Park play area to reduce potential site-related risks.